Ejercicio13sec2(ejercicios de repaso)grossman2ed.

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hallar la determinante y la inversa de la matriz dada:

$$A = \begin{pmatrix} 2 & 1 & 0 & 0 \\ 0 & -1 & 3 & 0 \\ 1 & 0 & 0 & -2 \\ 3 & 0 & -1 & 0 \end{pmatrix}$$

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| Sage Version 3.4, Release Date: 2009-03-11                         |
| Type notebook() for the GUI, and license() for information.        |
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Sage Version 3.4, Release Date: 2009-03-11
```

```
sage] A=matrix(QQ,[[2,1,0,0],[0,-1,3,0],[1,0,0,-2],[3,0,-1,0]])
sage] A
```

$$\begin{pmatrix} 2 & 1 & 0 & 0 \\ 0 & -1 & 3 & 0 \\ 1 & 0 & 0 & -2 \\ 3 & 0 & -1 & 0 \end{pmatrix}$$

```
sage] A.determinant()
```

22

```
sage] A.inverse()
```

$$\begin{pmatrix} \frac{1}{11} & \frac{1}{11} & 0 & \frac{3}{11} \\ \frac{9}{11} & -\frac{2}{11} & 0 & -\frac{6}{11} \\ \frac{3}{11} & \frac{3}{11} & 0 & -\frac{2}{11} \\ \frac{1}{22} & \frac{1}{22} & -\frac{1}{2} & \frac{3}{22} \end{pmatrix}$$

```
sage]
```

esta es la determinante que es 22 y su inversa que es una matriz B.